

SPECIAL ISSUE

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FORTUNE

ASIA IN THE 1990s

All You Need to Know About
the Booming Pacific Rim

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Singapore at dusk

FORTUNE



ABOVE: At the Yong-in amusement park near Seoul, owned by Samsung, young Korean girls pause after performing a traditional dance. Photograph by Paul Chesley-Aspen.

COVER: Helmo Aga of Contact Press Images photographed Singapore aglitter at sunset.

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The country really is different, and the Western newcomer should not underestimate its foreignness. Because Japan is so dominant in the region, grasping the nuances is essential to doing business there.

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Powered by a cascade of cash from bulging trade surpluses, shares on Asia's exchanges are behaving like runaway bulls. But the gains aren't always easy to rope in. Here's an investor's guide to the mysterious East.

by John J. Curran

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From Singapore to Bangkok, you have many more choices than you used to. Yesterday's big borrowers need other services today. Look hard at local institutions, not just for contacts but for expertise. Still, no bank in Asia has quite the breadth of Citicorp.

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The 12 countries of the region share an aptitude for melding new Western technologies with the old Oriental virtues of discipline, patience, and diligence. They're looking for American partners to team up with indigenous entrepreneurs. But the rainbow of opportunities and risks they present is as diverse as their cultures. Here's what you need to know. *by Roy Rowan*

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Wear conservative suits and clean socks. Be punctual and polite. Avoid backslapping, head patting, and "night duck" soup. But be prepared to croon "My Way" with your host in a karaoke bar. *by Frederick Hiroshi Katayama*

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"The Japanese are already saved. They are a sacred race. It is understood, in the traditions of Shinto, that they descend from God."

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"The chaebol are driven by an almost religious fervor for expansion. They all want to build empires."

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"The other American banks are essentially either going home or folding up a lot of their tents."

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"I have seen expatriates in Asia looking harried, puzzled, resentful, and broke. I don't know any who have been bored."

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EDITOR'S DESK

No part of the world is more intriguing right now than the necklace of nations stretching from Japan's northern tip through China and Southeast Asia to Australia and New Zealand. And no wonder. The Asian side of the Pacific Rim contains the world's most torrid economies.



Louis Kraar

If you don't know the Rim, you would be wise to become well acquainted. Even if you do regularly fly to Tokyo or Seoul, there are corners of the region that you will need to know about soon. This special issue will enjoyably help you do that.

To produce it, international editor Donald Holt directed a team of 45 editors, writers, reporters, designers, and photographers. Says Holt: "Along with all the stunning statistics, we wanted to give readers an insider's look."

Louis Kraar, who recently returned from six years as our man in Southeast Asia, spent six weeks back on his old beat. Among his stories: "Meet 25 People You Ought to Know," written with the help of reporter Sally Solo in Tokyo, is a revealing Who's Who of the Pac Rim.



Members of the Pac Rim special issue team (from left): writers Carla Rapoport, John Curran, and Roy Rowan; reporters Frederick Hiroshi Katayama, Sara Hammes, and Joan Viebranz

sions of 12 countries.

Ford Worthy, who replaced Kraar in Hong Kong last year, wrote three stories, with help from reporter Shelley Neumeier. The toughest, he says, was sorting out confusing patterns in China since the June massacre. Carla Rapoport, our Tokyo bureau chief, tells how Japan really works, in a story that will surprise you.

One of the more fascinating aspects of the region is its booming stock markets, profiled by John Curran, our chief investment writer. Last year he wrote a landmark analysis of the Tokyo stock exchange, taking the contrarian opinion that what looked to many on Wall Street as a highly overvalued market was actually on solid ground. He proved to be right on the money, and his story won the Overseas Press Club Award for the year's best financial reporting from abroad.

Barbara Smyth designed the issue, aided by Mark Rosenthal. Elizabeth Krist directed a platoon of photographers. Before your first—or next—trip to Asia, put your feet up and let us show you around.

Marshall Loeb
MANAGING EDITOR



Editor Holt



Krist



Smyth



Rosenthal



Ford Worthy

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AND GREGORY WAKABAYASHI

TEXT BY ROY ROWAN
REPORTED BY SARA HAMMES



Stretching from Hokkaido in northern Japan to Tasmania in southern Australia, a distance of 6,000 miles, the Asian side of the Pacific Rim is populated by some two billion people whose looks, lifestyles, politics, and economic progress differ as widely as the topographies of their countries.

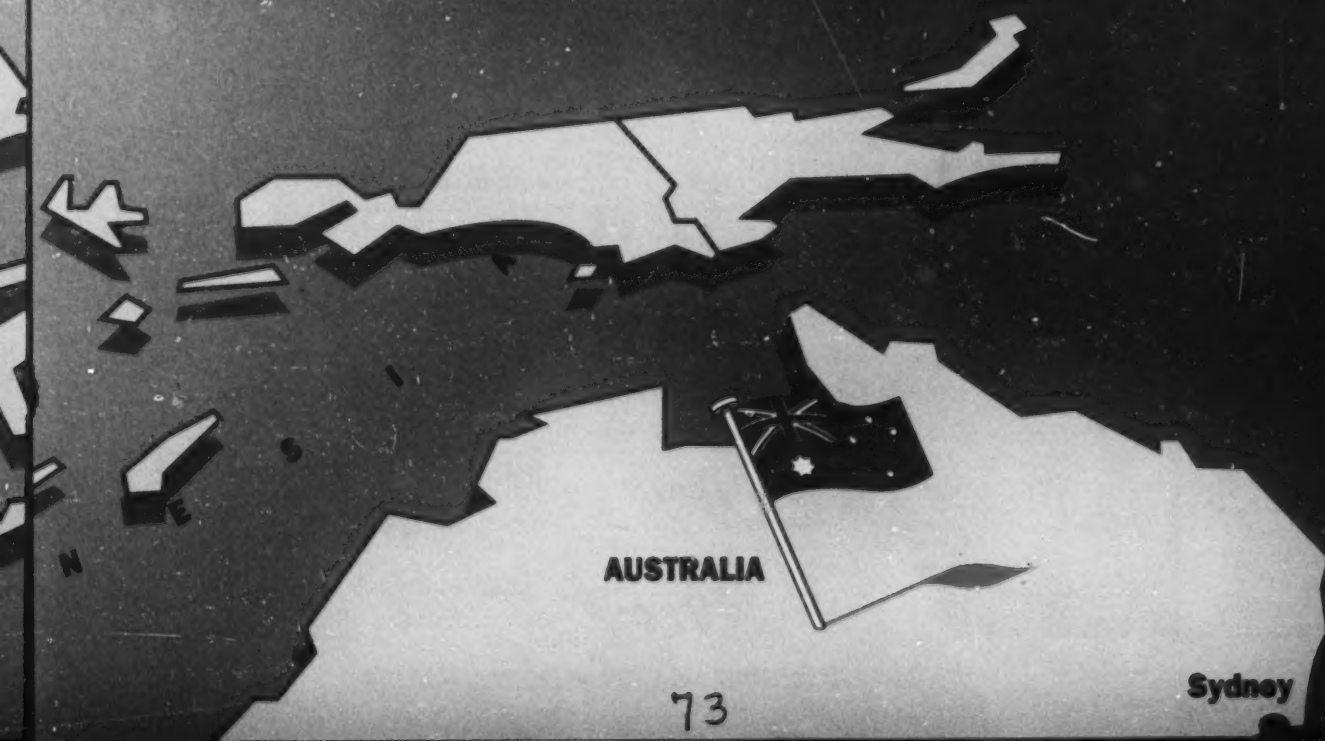
A STRATEGIC GUIDE TO THE RIM

They vary strikingly in size, shape, and political stripe. Yet the Pacific Rim countries developing fastest share an aptitude for melding new Western technologies with old Oriental virtues—discipline, patience, and diligence. What's more, their governments are actively seeking American partners to team up with indigenous entrepreneurs. Chauvinism and corruption can still kill a deal, but the old antagonisms bred of colonialism and war are fading.

On the surface, the culture gap between East and West seems to be disappearing. Soaring skyscrapers and roaring subways, the blare of rock music and the blur of blue jeans along any street, heighten an impression that "these folks are just like us." They're not. Even in high-living Hong Kong, where chauff-

feured Rolls-Royces crowd each other on the narrow roads, it's not unusual to see a bicyclist pedaling past with a side of pork slung over the back wheel.

Travel through the region is usually punctual, and accommodations comfortable. But holding an airline ticket doesn't guarantee a seat unless you've reconfirmed. And don't venture anywhere without a room reservation. In Taipei or Bangkok a cellular phone may come in handy. However, in Tokyo it's almost impossible to be out of reach of a pay phone. But you'd better know the color coding: Red, pink, and yellow phones take coins only, while green ones accept prepaid cards sold for 500 or 1,000 yen apiece. On the following pages are more colors in the rainbow of opportunity that arcs across the Asian side of the Pacific.

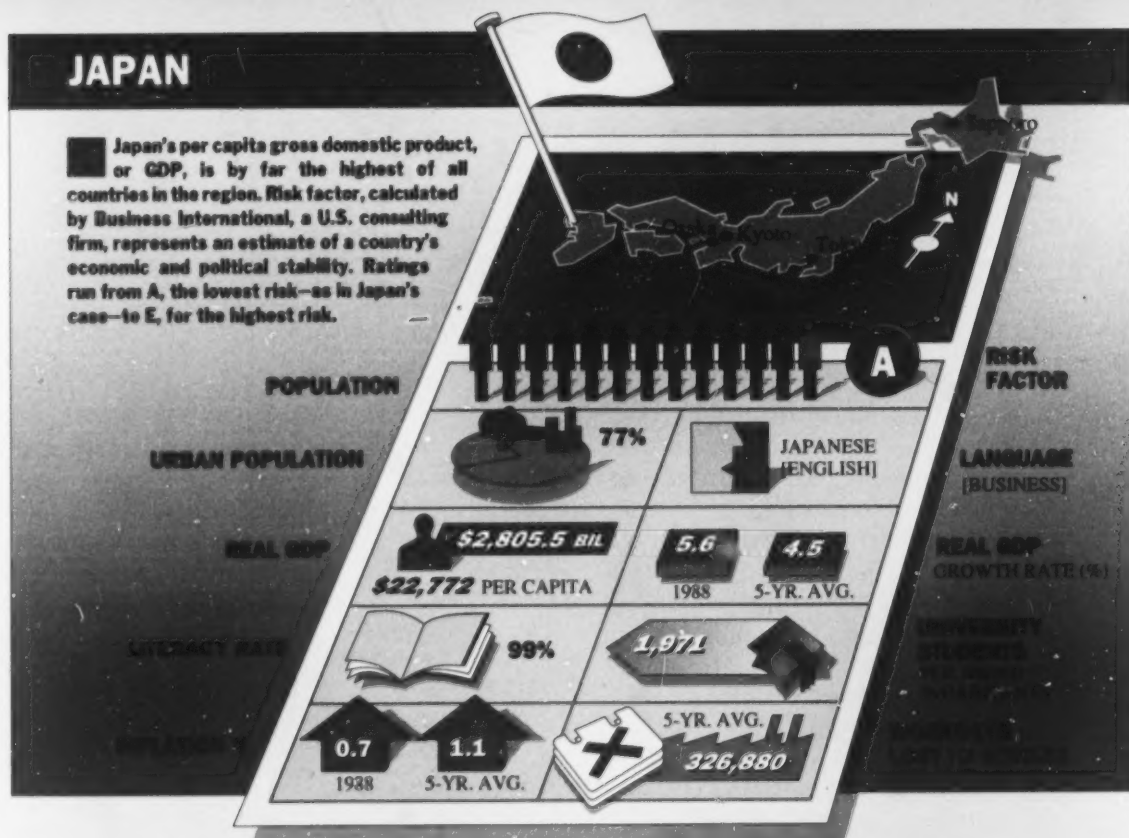


JAPAN

Japan's per capita gross domestic product, or GDP, is by far the highest of all countries in the region. Risk factor, calculated by Business International, a U.S. consulting firm, represents an estimate of a country's economic and political stability. Ratings run from A, the lowest risk—as in Japan's case—to E, for the highest risk.

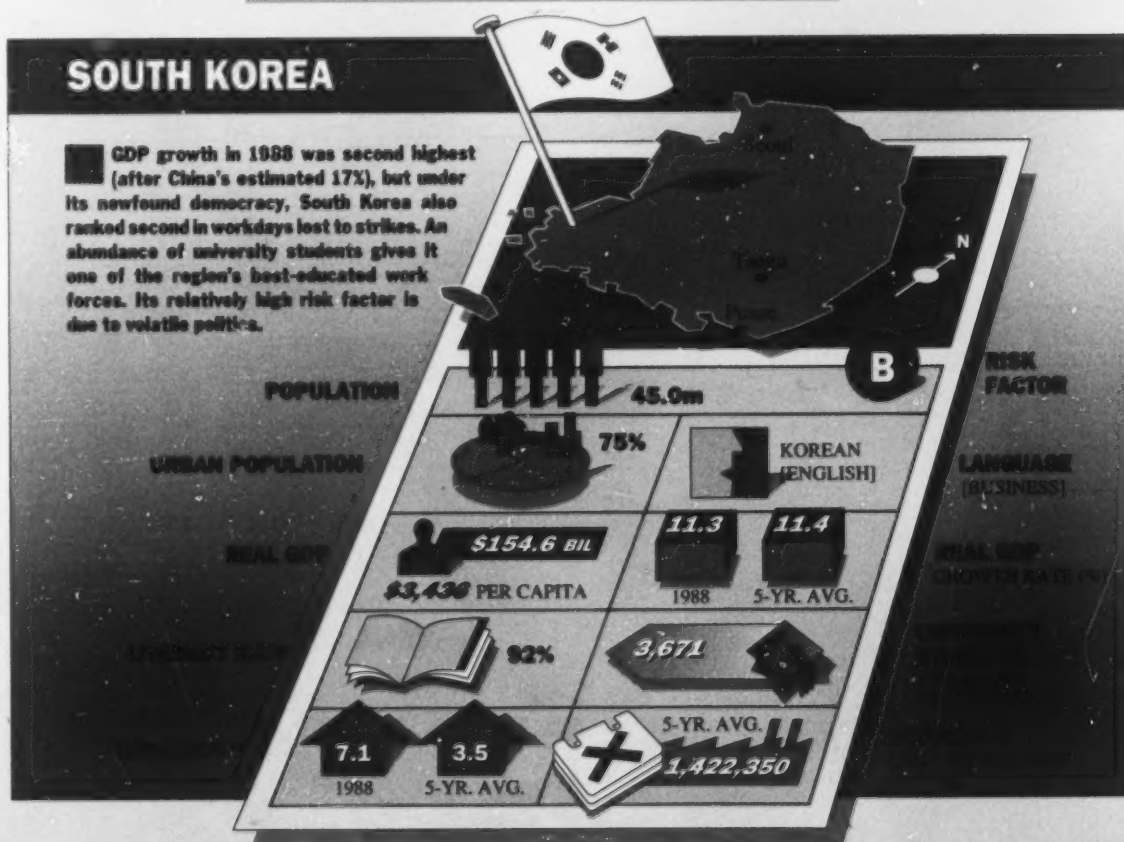
Japan boasts that it has already replaced the U.S. as the world's richest country, at least in the value of its assets. An acre of prime Tokyo land, for example, sells for \$1 billion. What's incontrovertible is that space remains Japan's scarcest commodity; picture half the population of the U.S. crammed into California. But the ubiquitous crowds surging through neon-splashed, gimcrack downtowns or packing *rah-shah-wah* (rush hour) trains or staging a Sunday mass assault on snow-fringed Mount Fuji no longer translate into abundant or cheap labor. Unemployment is a mere 2.3%, and there are 132 jobs for every 100 applicants. The only human resource shortage seems to be in straight-arrow politicians: Bribery and a sex scandal brought down two Prime Ministers this year. Laments an official, "We have a first-rate economy, a second-rate standard of living, and third-rate politicians."

South Korea, economically bled by the occupying Japanese from 1910 to 1945, set adrift by a Soviet-U.S. agreement in 1945, and invaded by the North Koreans in 1950, racked up a \$14 billion trade surplus last year—especially remarkable considering that the nation has almost no natural resources. But then South Koreans approach economic growth with the same determination and precision they apply to tae kwon do, their ancient martial art, in which they can split a beam in the flash of a foot. As a result, South Korea produces for



SOUTH KOREA

GDP growth in 1988 was second highest (after China's estimated 17%), but under its newfound democracy, South Korea also ranked second in workdays lost to strikes. An abundance of university students gives it one of the region's best-educated work forces. Its relatively high risk factor is due to volatile politics.



CHINA

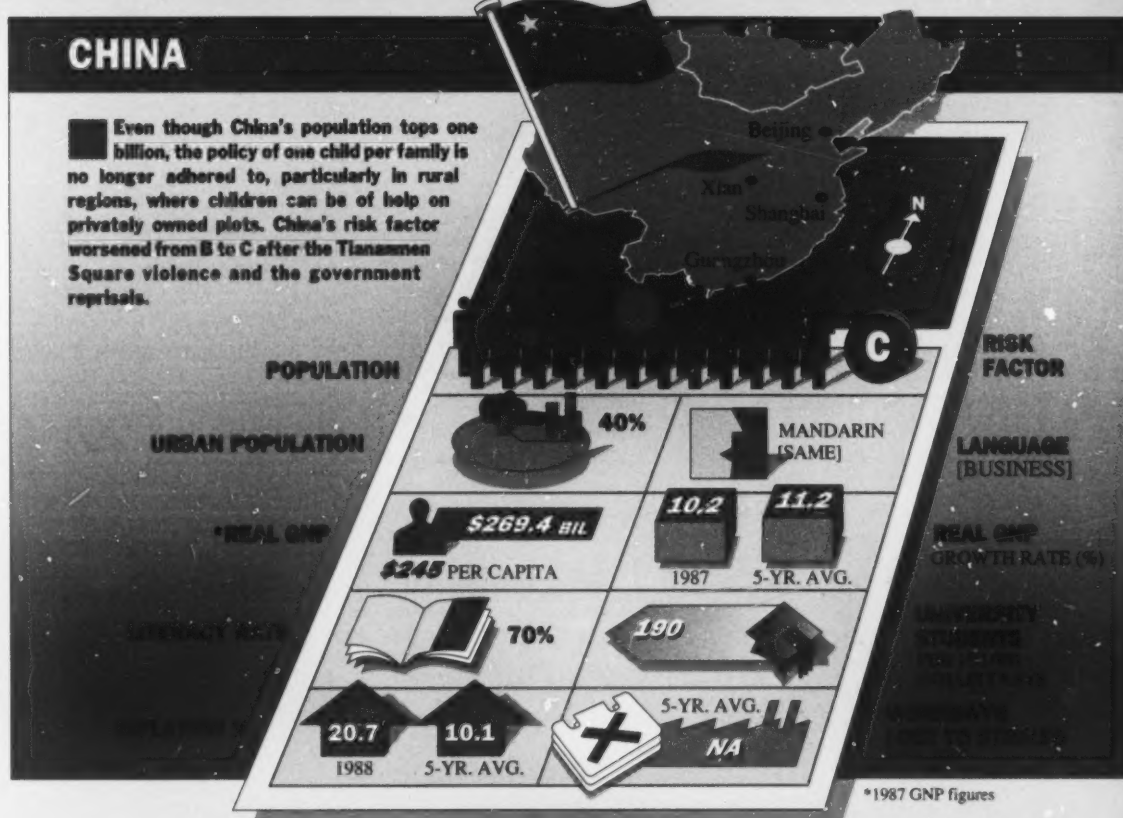
Even though China's population tops one billion, the policy of one child per family is no longer adhered to, particularly in rural regions, where children can be of help on privately owned plots. China's risk factor worsened from B to C after the Tiananmen Square violence and the government reprisals.

export the least expensive ton of steel, personal computer, and video recorder in the world.

Prospects for a Pacific Century may ultimately depend on the People's Republic of China because of its vast natural and human resources. But last spring's student protests, culminating in the Tiananmen Square massacre, drove away foreign investment. The political crackdown is likely to exacerbate the country's three worst economic problems—a rising trade deficit, dwindling foreign exchange, and industrial output that is declining sharply.

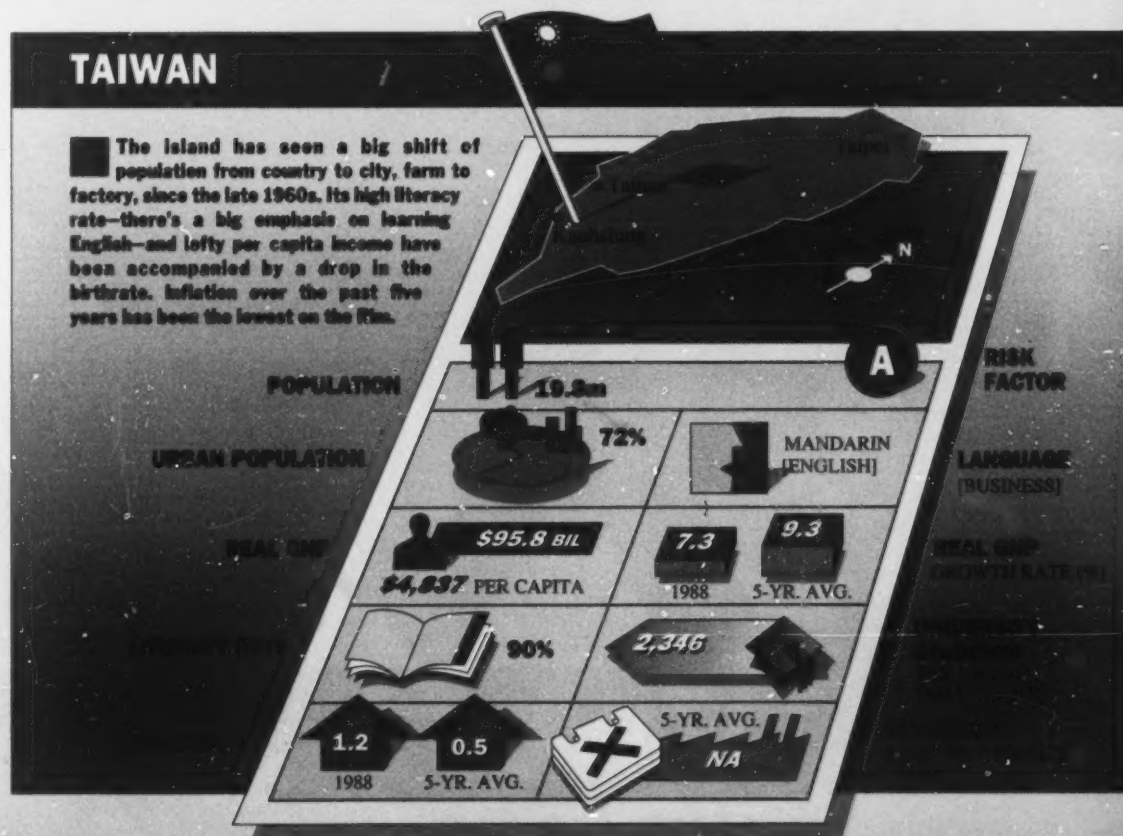
The political gulf between mainland China and small, mountainous, tobacco-leaf-shaped Taiwan remains large. But in practical ways, the two old enemies are growing closer. Trade between the two reached \$2.5 billion in 1988. Such trade still moves mainly through Hong Kong, but the government of Taiwan no longer tries to prevent it. Taiwan's roller-coaster stock exchange boasts one of the world's biggest trading volumes (101 billion shares in 1988), on a par with New York and Tokyo. By 11 A.M. it's SRO at Taipei's Wall Street Restaurant, where diners huddle around glass-topped tables, peering down at the latest stock quotations flashing by on green-screened TV monitors underneath lunch.

In Hong Kong's entrepreneurial paradise (low taxes, no tariffs, and



TAIWAN

The island has seen a big shift of population from country to city, farm to factory, since the late 1960s. Its high literacy rate—there's a big emphasis on learning English—and lofty per capita income have been accompanied by a drop in the birthrate. Inflation over the past five years has been the lowest on the Rim.

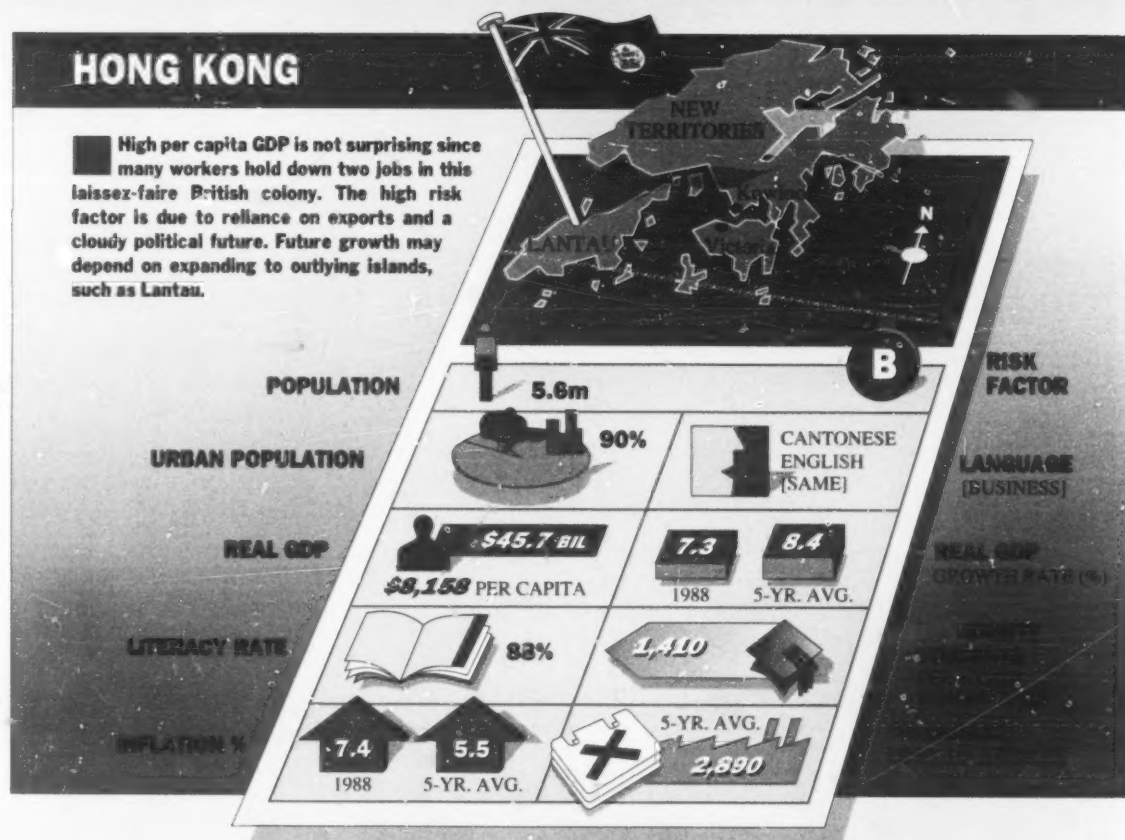


HONG KONG

High per capita GDP is not surprising since many workers hold down two jobs in this laissez-faire British colony. The high risk factor is due to reliance on exports and a cloudy political future. Future growth may depend on expanding to outlying islands, such as Lantau.

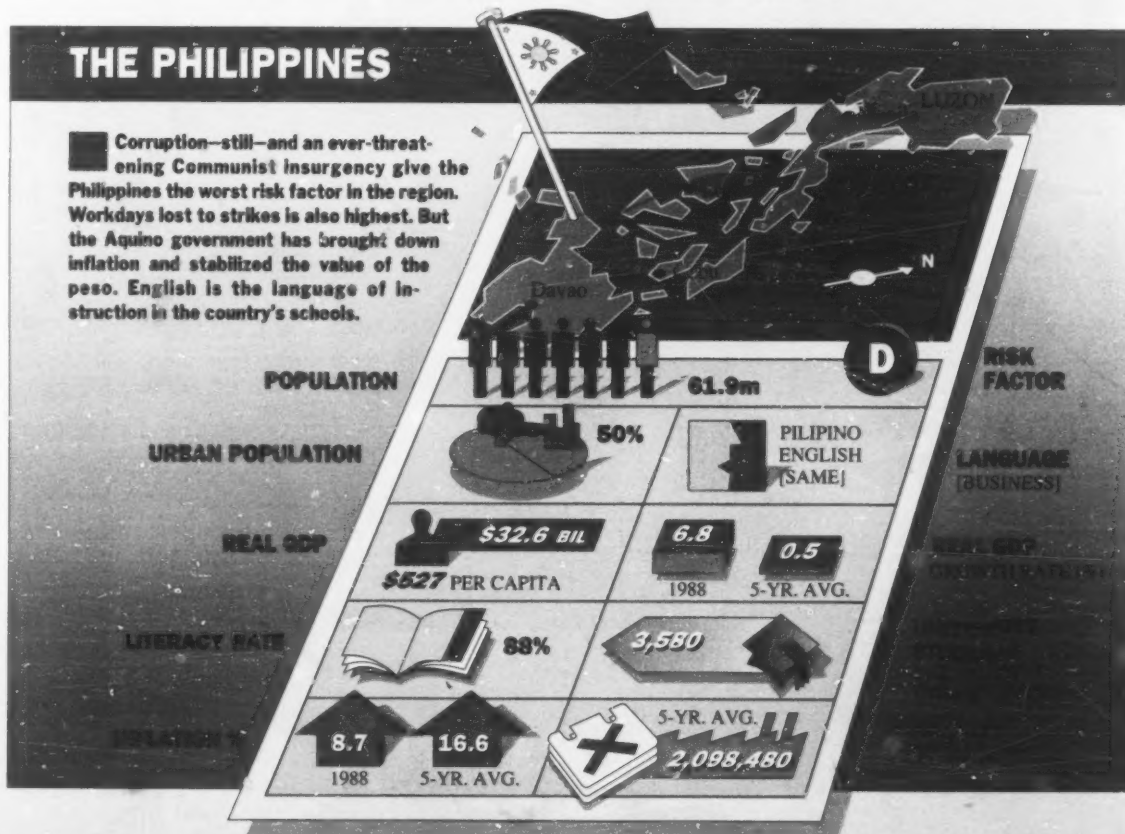
few government controls), it is said that "Mao was overtaken by Mammon." Despite the uncertainty over exactly how China will treat the 410-square-mile territory when it takes over in 1997, shimmering steel-and-glass towers keep sprouting among the lush green peaks. The Chinese have promised to make Hong Kong a Special Administrative Region so that at least some of the wheeling and dealing—which generates much of China's hard currency—can continue. But the harsh way in which China's aging leaders responded to student demands for democracy have created big doubts in Hong Kong. The flight of capital—and people—has begun.

From the rice terraces etched into the steep mountainsides of northern Luzon to the pineapple plantations carved out of the dense jungles of southern Mindanao, Americans prospecting for new places to invest in Asia will find no more welcoming place than the Philippines. Most of the people speak English. More important, the economy, long ravaged by corruption under former dictator Ferdinand Marcos, is finally picking up, though his successor, Corazon Aquino, has not been able to cure the disease completely. Foreign investment tripled last year to nearly \$1 billion, while exports rose 27% to \$7 billion. This year 19 countries and seven international organizations led by the World Bank are pumping \$3.5 billion in grants and loans



THE PHILIPPINES

Corruption—still—and an ever-threatening Communist insurgency give the Philippines the worst risk factor in the region. Workdays lost to strikes is also highest. But the Aquino government has brought down inflation and stabilized the value of the peso. English is the language of instruction in the country's schools.



VIETNAM

It's too early to estimate the risk factor since Vietnam is just now opening to foreign investors. Per capita GDP is the lowest on the Rim, and inflation the highest. One point of light: The Communist government has worked hard to wipe out illiteracy, widespread under prior regimes.

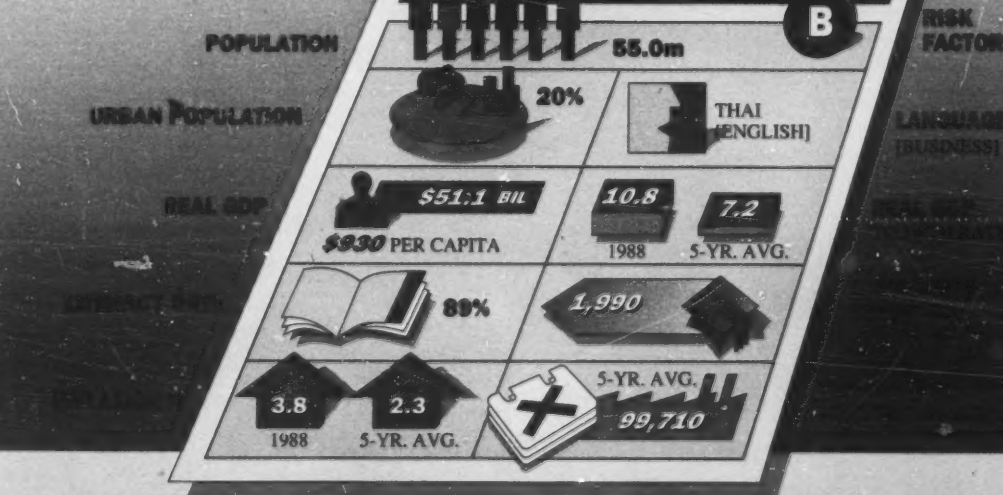
into the Philippines Assistance Plan. A settlement was also reached with international banks to restructure the country's \$28 billion debt.

To rouse a comatose economy, the Communist leaders of Vietnam are trying a little market capitalism. Called *doi moi*, this local version of Soviet perestroika is supposed to encourage Vietnamese entrepreneurs to start small businesses. Farmers can keep half their crops. So far *doi moi* has made little headway. Unemployment remains high, though inflation is moderating. The Vietnamese are also trying to lure Western and Japanese investment by setting a realistic exchange rate and adopting flexible regulations on foreign investment. Saigon veterans will discover another bright spot: The famous Continental Hotel, once the haunt of Graham Greene, whose 1955 novel, *The Quiet American*, foresaw America's misfortune in Vietnam, has just reopened, with English-speaking university grads as waiters.

Thailand's Prime Minister Chatichai Choonhavan loves motorcycling and disco dancing—and foreign investors. Such economic aggressiveness belies Pentagon experts who predicted that this land of golden temple spires would be the first domino to fall after U.S. troops pulled out of Vietnam. Instead, new investment has been growing faster than anywhere else in Southeast Asia. But newcomers may be put off by Bang-

THAILAND

Peripatetic King Bhumibol Adulyadej is keen on development and frequently visits new plants set up by foreign companies. A surge of tourists and investors from abroad raised 1988 GDP sharply. There is growing eagerness in Bangkok to learn English—it helps with business opportunities.



kok's tangled traffic, temperamental phones, and tourist hordes flocking everywhere from the captivating Emerald Buddha to the massage parlors of Patpong.

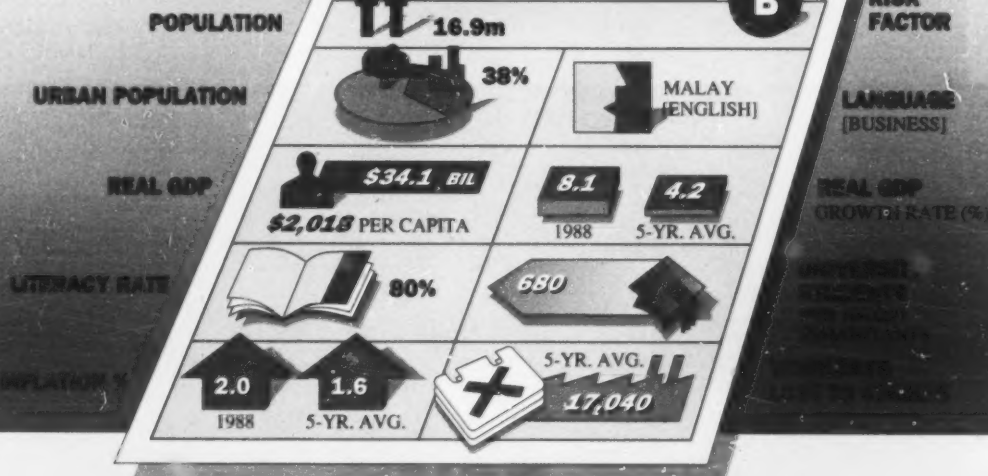
By contrast, Malaysia's modern roads, instant telecommunications, and well-educated workers are a pleasant surprise. All the more so because a volatile ethnic mix (47% Malay, 33% Chinese, and 9% Indian) once seemed to threaten development. Though Malaysia is the third-largest producer of semiconductors after the U.S. and Japan, commodities remain important. Petroleum, palm oil, rubber, tin, timber, and cocoa account for 45% of exports.

Singapore is so small that incoming 747s must be wheels down before they sweep across the frontier. Yet the 240-square-mile city-state is one of the world's biggest oil refiners and is wall to wall with multinational manufacturers. The political stability provided by Prime Minister Lee Kuan Yew's strict 30-year reign has turned Singapore into a high-tech mecca with one of the highest living standards in Asia. The average annual wage has shot up to approximately \$4,800, some five times that of an unskilled Indonesian next door.

Indonesia is rich in potential. It is Southeast Asia's largest country, with more than 13,500 islands flung over 3,000 miles of ocean. The world's most populous Islamic nation, it has proven oil reserves of nine billion

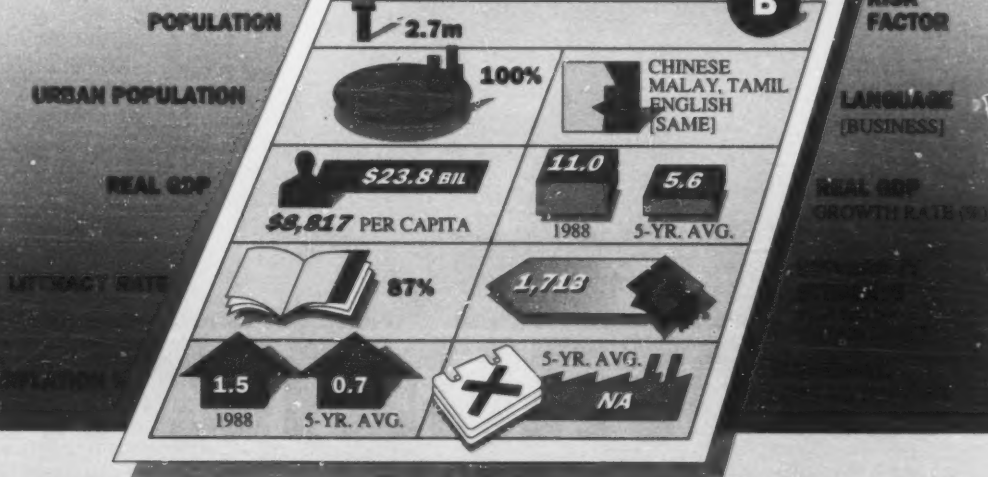
MALAYSIA

Political infighting, economic policy, and slightly subpar foreign reserves keep the risk factor at a B level, despite low inflation and a fast-developing high-tech sector of the economy. The work force in this former British colony is fairly fluent in English. The population remains predominantly rural.



SINGAPORE

This minute city-state has the Rim's third-highest per capita GDP (after Japan and Australia) but gets a B risk rating largely because of uncertainty as to how smooth the political succession will be. Lee Kuan Yew has said that he will step down as Prime Minister late next year.



INDONESIA

Contributing to its high risk factor is speculation that this will be President Suharto's last term, completing 25 years in office. The large national debt is also a worry. Low literacy is attributable to a large rural population and the multiplicity of languages spoken in the country.

barrels and deposits of almost every mineral used by industry. The country's potential, however, is still far from being realized. Depressed oil revenues, off 50% since 1985, badly damaged the economy. Indonesia is Asia's biggest borrower, with debts of \$53 billion. Interest alone takes a third of the national budget. But the money gets paid—Indonesia has an excellent record for honoring its obligations.

Australians, who sometimes affectionately refer to their land as the Lucky Country, are concerned that it's going Asian. A middle-income housing development in Sydney called Killarney Heights has been dubbed Hiroshima Heights by real estate developers who complain that the Japanese and Hong Kong Chinese are the only home buyers with any money. The *Taipan*, a four-deck floating Chinese restaurant juxtaposed against the spectacular "flying roof" of Sydney's harbor-side opera house, is a local landmark. Growing almost as familiar are the legions of Vietnamese immigrants—some 104,000 in all—now holding down jobs in a country where unemployment is almost 7%. But then native Australian labor, it has been said, can be "so laid back as to be positively horizontal." **E**

SOURCES: INTERNATIONAL LABOR ORGANIZATION; UNITED NATIONS EDUCATIONAL, SCIENTIFIC, & CULTURAL ORGANIZATION; BUSINESS INTERNATIONAL CORP.

POPULATION

187.7m **C**

URBAN POPULATION

25%

REAL GDP

\$63.4 BIL
\$336 PER CAPITA

LITERACY RATE

72%

INFLATION %

8.0 1988
7.6 5-YR. AVG.

BAHASA INDONESIA (SAME)

RISK FACTOR

LANGUAGE (BUSINESS)

REAL GDP GROWTH RATE (%)

4.8 1988
4.2 5-YR. AVG.

UNIVERSITY STUDENTS PER 100,000 INHABITANTS

600

WORKDAYS LOST TO STRIKES

5-YR. AVG.
146,080

AUSTRALIA

A weak Australian dollar, low GDP growth, and the high number of workdays lost to strikes indicate a less than vibrant economy. Yet the country still offers some exciting opportunities for development and tourism. The Outback remains one of the world's last frontiers.

POPULATION

16.5m **A**

URBAN POPULATION

85%

REAL GDP

\$196.8 BIL
\$11,929 PER CAPITA

LITERACY RATE

98%

INFLATION %

7.6 1988
7.1 5-YR. AVG.

ENGLISH (SAME)

RISK FACTOR

LANGUAGE (BUSINESS)

REAL GDP GROWTH RATE (%)

4.0 1988
4.6 5-YR. AVG.

UNIVERSITY STUDENTS PER 100,000 INHABITANTS

2,444

WORKDAYS LOST TO STRIKES

5-YR. AVG.
1,382,420

THE PAC RIM 150

FORTUNE's list of the largest industrial corporations on the Asian side of the Pacific Rim highlights the reach and power of the Japanese—along with the growing strength of the South Koreans.

The power of Japan in the Pacific Rim comes blasting through in FORTUNE's list of the 150 largest industrial companies ranked by sales. All but 23 are Japanese. But that's no surprise. What is striking is the strength of the big conglomerates of Korea (see South Korea). Two of the top ten are Korean—Samsung (No. 5) and Daewoo (No. 9).

In all, South Korea has ten companies on the list. That's matched by Australia, though with a difference. The Korean companies are in heavy manufacturing or electronics. In mineral-rich—and thirsty—Australia, most of the giants are in natural resources or brewing. Malaysia, New Zea-

land, and Taiwan each have one company among the 150. Some major companies are not on the list because they are private or family-owned.

It was a good year for Japanese car-makers. Toyota Motor not only came in first in sales, with \$50.8 billion, but also was No. 1 in profits, with \$2.3 billion. Nissan Motor, which ranks fourth in sales, had a big turnaround last year. Profits soared 273.7% to \$463 million.

The earnings comeback champ was Omron Tateisi Electronics of Japan (No. 127). The company, which makes equipment for factory and office automation, reported a 309.8% increase in profits. Making gains of

at least 200% were Hyundai Heavy Industries (No. 86) in Korea and a handful of Japanese companies—General Sekiyu (No. 101), a petroleum refiner; Nisshin Steel (No. 113); Onoda Cement (No. 116); and Canon (No. 24), the maker of computers, faxes, copiers, and photographic equipment.

Only two companies lost money: Pacific Dunlop (No. 118), an Australian manufacturer of tires and the world's largest maker of condoms, and Kanebo, the Japanese cosmetics and textile company. Pacific Dunlop attributed its \$29.3 million loss to expenses in connection with acquisitions. Kanebo said its \$19 million loss was due in part to closing a subsidiary. — Joan C. Viebranz

Rank	COMPANY Ranked by sales	COUNTRY	SALES		PROFITS		ASSETS		STOCK-HOLDERS' EQUITY		EMPLOYEES	
			\$ Millions		\$ Millions	Rank	\$ Millions	Rank	\$ Millions	Rank	Number	Rank
1	TOYOTA MOTOR ¹	JAPAN	50,788.9		2,314.6	1	40,817.6	2	24,883.2	1	86,082	10
2	HITACHI ¹	JAPAN	41,330.7		986.0	4	40,862.4	1	16,265.5	3	263,996	1
3	MATSUSHITA ELECTRIC INDUSTRIAL ¹	JAPAN	33,922.5		1,177.2	3	38,011.4	3	19,961.4	2	134,186	3
4	NISSAN MOTOR ¹	JAPAN	29,097.1		463.0	13	33,631.2	4	11,645.2	4	108,716	5
5	SAMSUNG	SOUTH KOREA	27,386.1		464.3	12	22,192.7	10	2,740.2	34	175,710	2
6	TOSHIBA ¹	JAPAN	25,440.8 ²		438.9 ²	14	27,573.8 ²	6	5,785.2 ²	9	122,000 ²	4
7	HONDA MOTOR ¹	JAPAN	22,236.5 ¹		819.5 ¹	6	14,282.1	19	6,282.7	7	58,330	14
8	NEC ¹	JAPAN	19,626.1		183.4	36	22,408.0	8	4,780.2	16	102,452	6
9	DAEWOO	SOUTH KOREA	17,251.2		33.3	122	24,267.2	7	2,917.3	32	93,930	8
10	NIIPPON STEEL ¹	JAPAN	17,108.9 ²		291.7 ²	22	28,614.8 ²	5	8,458.7 ²	12	67,768 ²	12
11	MITSUBISHI ELECTRIC ¹	JAPAN	16,857.4		180.6	45	17,961.3	13	4,444.8	18	75,785	11
12	MAZDA MOTOR ¹	JAPAN	15,150.9		76.4	77	9,576.8	30	2,647.9	38	28,027	32
13	FUJITSU ¹	JAPAN	14,787.3		304.5	20	18,067.2	12	6,884.2	6	94,825	7
14	MITSUBISHI MOTORS ¹	JAPAN	14,183.3		96.2	69	11,583.2	24	1,250.9	67	25,800	35
15	MITSUBISHI HEAVY INDUSTRIES ¹	JAPAN	13,386.0		221.8	30	22,472.6	9	4,907.3	15	56,100	15
16	NIIPPON OIL ¹	JAPAN	12,773.0 ²		167.0	41	12,556.0	22	3,310.4	26	10,178	97
17	SONY ¹	JAPAN	10,133.9 ²		265.6 ²	28	15,043.2 ²	17	5,240.5 ²	14	60,500 ²	13
18	SANYO ELECTRIC ¹	JAPAN	9,375.8 ²		47.7	103	13,691.6	20	5,414.8	13	38,179	21
19	BRIDGESTONE	JAPAN	9,296.0		210.2	18	11,194.3	25	2,022.2	29	88,148	9
20	IBM JAPAN	JAPAN	9,288.8 ²		685.1 ¹	8	5,485.2 ²	61	2,480.5 ²	39	21,061 ¹	47
21	ISUZU MOTORS ¹	JAPAN	9,267.9 ²		31.0	101	7,901.2	48	1,124.8	73	24,443	41
22	NIIPPON DENSO	JAPAN	8,962.5 ²		301.1 ¹	21	8,213.3 ²	37	4,020.6 ²	20	47,389 ²	18
23	IDEMITSU KOSAI ¹	JAPAN	8,814.9 ²		9.2 ²	145	10,123.1 ¹	28	337.9 ²	137	5,497 ¹	133
24	CANON	JAPAN	8,631.0 ²		280.5 ²	23	10,384.6 ²	27	3,330.4 ²	25	40,740 ²	20
25	SHARP ¹	JAPAN	8,608.0 ²		148.3 ²	46	13,042.8 ²	21	3,851.1 ¹	21	28,351 ¹	29

The definitions and concepts underlying the figures in this directory are explained on page 132. Footnotes appear on page 130.

	COMPANY	COUNTRY	SALES	PROFITS		ASSETS	STOCK-HOLDERS' EQUITY	EMPLOYEES
Rank			\$ Millions	\$ Millions	Rank	\$ Millions	\$ Millions	Number
26	NKK ^{1,2}	JAPAN	8,276.0 ²	122.4 ³	58	21,270.5 ⁵	1,963.5 ⁵	31,223 ³
27	COSMO OIL ²	JAPAN	7,860.3	56.3	96	8,765.9	495.5	4,191
28	SHOWA SHELL SEIYU	JAPAN	7,744.8 ²	85.8 ³	72	6,009.0 ⁵	522.0 ⁵	2,428 ³
29	SUNKYONG	SOUTH KOREA	7,722.6	138.8	51	4,970.0	1,291.9	20,572
30	ASAHI GLASS	JAPAN	7,702.1 ⁴	358.1	15	8,159.8	3,604.1	16,692
31	SUMITOMO METAL INDUSTRIES ²	JAPAN	7,675.5	20.7	134	16,606.5	2,706.5	29,509
32	KOBE STEEL ²	JAPAN	7,631.9	34.9	119	15,999.5	1,604.7	25,583
33	ELDERS IXL ¹	AUSTRALIA	7,618.2	555.0	10	7,387.2	3,347.4	38,000
34	TAIYO FISHERY ²	JAPAN	7,410.8	1.0	148	3,507.6	258.0	8,066
35	KAWASAKI STEEL ²	JAPAN	7,333.1	62.9	89	14,385.4	2,700.6	26,909
36	JAPAN TOBACCO ^{1,10}	JAPAN	7,261.7 ²	266.2 ³	27	12,232.4 ⁵	7,866.1 ⁵	28,100 ³
37	DAI NIPPON PRINTING ²	JAPAN	7,157.4	171.6	39	10,025.1	1,498.3	19,014
38	BROKEN HILL PROPRIETARY ¹²	AUSTRALIA	7,079.5	710.1	7	15,325.3	4,697.6	51,000
39	SUMITOMO CHEMICAL	JAPAN	7,002.0	304.9	19	7,856.9	1,442.3	12,340
40	ASAHI CHEMICAL INDUSTRY ²	JAPAN	6,882.4	175.4	37	7,319.3	2,178.0	22,105
41	CHINESE PETROLEUM ¹⁰	TAIWAN	6,706.4	1,942.4	2	8,147.9	6,045.7	23,328
42	DAI NIPPON PRINTING ²	JAPAN	6,574.7 ²	234.4 ³	29	6,126.9	3,128.5	13,470
43	SNOW BRAND MILK PRODUCTS ²	JAPAN	6,435.1	38.8	114	2,921.7	558.0	14,604
44	SUZUKI MOTOR ²	JAPAN	6,379.4	76.7	76	4,663.0	1,002.1	12,897
45	ISHIKAWA-JIMA-HARIMA HEAVY IND. ²	JAPAN	6,174.7	3.8	146	8,938.4	1,001.4	26,747
46	TOPPAN PRINTING ²	JAPAN	6,148.1 ⁴	164.2 ³	42	5,310.7	2,307.4	14,200
47	INATSUSHITA ELECTRIC WORKS ²	JAPAN	6,131.9	185.6	35	5,768.1	2,374.2	18,153
48	SSANGYONG	SOUTH KOREA	6,021.2	196.1	34	9,434.4	2,019.0	18,831
49	FUJI PHOTO FILM ¹⁰	JAPAN	5,987.7	576.2	9	9,209.8	5,653.7	18,195
50	DAI NIPPON METAL ²	JAPAN	5,611.1 ³	45.8 ³	105	5,945.9 ⁵	605.4 ⁵	11,265 ³
51	SUMITOMO ELECTRIC INDUSTRIES ²	JAPAN	5,556.7	134.4	53	5,971.6	1,953.8	25,246
52	KIRIN BREWERY	JAPAN	5,550.1 ^{1,4}	275.1 ^{1,4}	24	7,876.8 ⁵	2,968.2 ⁵	12,238 ³
53	DAI NIPPON MINING ²	JAPAN	5,375.5 ²	53.1 ³	100	5,552.8 ⁵	780.2 ⁵	7,326 ³
54	TORAY INDUSTRIES ²	JAPAN	5,362.4	208.7	31	7,107.6	2,396.3	25,409
55	FLETCHER CHALLENGE ¹	NEW ZEALAND	5,125.1	344.2	16	7,569.5	2,121.3	41,000
56	KOMATSU ²	JAPAN	5,049.2 ²	89.8 ³	70	8,329.7	3,229.7	22,901
57	SHOWA DENKO	JAPAN	4,986.7	143.1	48	4,716.2	595.4	6,143
58	FUJI HEAVY INDUSTRIES ²	JAPAN	4,923.9	53.4	99	5,051.8	1,523.6	15,698
59	KUBOTA ²	JAPAN	4,889.1 ^{1,4}	133.0 ^{1,4}	54	5,911.5 ⁵	2,452.9 ⁵	17,500 ³
60	RICOF ²	JAPAN	4,869.1 ³	123.0 ³	57	5,161.2 ⁵	2,348.8 ⁵	20,500 ³
61	KAWASAKI HEAVY INDUSTRIES ²	JAPAN	4,862.2	66.6	87	7,605.3	663.4	19,236
62	DAIHATSU MOTOR ²	JAPAN	4,852.0 ²	43.5 ³	110	3,423.5	810.5	18,674
63	HYUNDAI MOTOR COMPANY	SOUTH KOREA	4,842.5	57.7	95	3,560.2	659.7	34,000
64	TAKEDA CHEMICAL ²	JAPAN	4,574.6 ²	273.4 ³	26	6,763.8 ⁵	3,337.7 ⁵	13,854 ³
65	FURUKAWA ELECTRIC ²	JAPAN	4,563.8	103.9	65	5,095.6	1,034.2	15,259
66	TOYO SEIKAN ²	JAPAN	4,548.4	161.4	44	3,805.7	1,631.0	6,107
67	TOA KENKYU KOGYO	JAPAN	4,543.8	273.5	25	5,048.7	2,778.8	2,286
68	DAI NIPPON INK & CHEMICALS ²	JAPAN	4,487.8	47.9	102	5,440.6	968.6	18,894
69	NEWS CORPORATION ¹	AUSTRALIA	4,383.9	343.6	17	11,004.9	4,022.8	28,305
70	KANEDO ²	JAPAN	4,202.9 ^{1,4}	(18.0) ^{1,4}	149	4,810.8 ⁵	81.8 ⁵	24,967 ³
71	HYOSUNG	SOUTH KOREA	4,182.8 ²	39.2 ³	113	3,096.5 ⁵	898.0 ⁵	24,500 ³
72	CRA	AUSTRALIA	4,165.0	471.5	11	6,499.9	2,964.3	21,834
73	FUJI ELECTRIC ²	JAPAN	4,028.6	47.6	104	5,191.7	980.5	17,496
74	OJI PAPER ²	JAPAN	4,006.6	126.1	56	4,742.3	1,475.0	5,484
75	TEIJIN ²	JAPAN	3,891.9	144.8	47	5,819.7	1,721.9	11,220

The definitions and concepts underlying the figures in this directory are explained on page 132. Footnotes appear on page 130.

RANKINGS

	COMPANY	COUNTRY	SALES	PROFITS	ASSETS	STOCK-HOLDERS' EQUITY	EMPLOYEES				
Rank			\$ Millions	\$ Millions	Rank	\$ Millions	Rank	\$ Millions	Rank	Number	Rank
76	GOLD STAR ¹⁴	SOUTH KOREA	3,857.8	24.8	131	3,242.0	104	589.8	119	36,442	24
77	UBE INDUSTRIES ²	JAPAN	3,848.1	139.9	49	6,500.1	50	379.2	136	12,578	82
78	NIPPON SUSAN KAISHA ²	JAPAN	3,838.9	29.4	126	2,333.9	128	610.3	116	6,242	124
79	SEKISUI CHEMICAL ²	JAPAN	3,836.1	101.7	66	3,700.8	90	1,124.1	74	8,135	106
80	NIPPON MEAT PACKERS ²	JAPAN	3,799.8	72.3	82	2,372.9	126	934.4	92	13,232	79
81	AIKIN SEIKI ²	JAPAN	3,788.8	72.1	83	2,762.4	115	1,214.5	70	12,427	85
82	MITSUBISHI OIL ²	JAPAN	3,755.1	56.1	97	4,225.1	79	259.5	141	3,385	144
83	KAO ²	JAPAN	3,719.1	96.2	68	3,630.9	93	1,697.8	54	11,000	91
84	PETRONAS ^{2, 10}	MALAYSIA	3,633.0	886.8	5	8,516.7	35	5,753.3	10	7,292	113
85	YAMAHA MOTOR ²	JAPAN	3,609.1	58.0	93	3,512.5	95	465.0	129	9,836	99
86	HYUNDAI HEAVY INDUSTRIES	SOUTH KOREA	3,608.2	59.4	91	4,031.1	85	1,028.8	80	49,300	17
87	AJINOMOTO ²	JAPAN	3,495.1	119.9	60	4,934.4	70	2,475.5	40	9,543	100
88	SUMITOMO RUBBER	JAPAN	3,455.5	39.8	112	3,288.7	100	302.4	139	20,000	50
89	TOYOBO ²	JAPAN	3,363.6	45.6	106	3,694.1	91	662.8	112	15,077	72
90	JIUO PAPER ²	JAPAN	3,348.6 ²	87.3 ²	71	4,045.9 ²	84	745.9 ²	101	6,883 ²	117
91	OKI ELECTRIC INDUSTRY ²	JAPAN	3,263.1 ²	25.1 ²	130	4,132.4 ²	81	957.3 ²	91	18,659 ²	59
92	YAMAHA ^{2, 15}	JAPAN	3,261.1	60.0	90	3,195.5	106	1,131.4	72	17,035	64
93	NIPPON LIGHT METAL ²	JAPAN	3,255.6	29.4	125	3,374.5	99	141.4	146	10,500	95
94	HINO MOTORS ²	JAPAN	3,241.8 ²	28.5 ²	127	1,978.1 ²	138	662.9 ²	111	8,095 ²	107
95	TDK ²	JAPAN	3,221.1	173.3	38	4,077.5	83	2,303.7	46	19,646	51
96	YAMAZAKI BAKING	JAPAN	3,200.9 ²	70.2 ²	84	2,111.1 ²	132	1,036.1 ²	79	15,919 ²	68
97	KONICA ¹⁷	JAPAN	3,175.7	12.7	143	3,843.0	87	1,372.1	62	22,000	45
98	NETSU TOATSU CHEMICALS ²	JAPAN	3,156.9	53.6	98	4,706.9	74	400.8	132	11,000	92
99	PIONEER ELECTRONIC ¹⁴	JAPAN	3,089.8	137.2	52	2,369.6	127	1,342.4	63	12,942	80
100	MITSUBISHI PETROCHEMICAL	JAPAN	3,068.0	198.1	33	4,321.7	78	1,000.1	86	3,793	142
101	GENERAL SEIKYU ²	JAPAN	3,055.2	57.9	94	2,522.8	123	687.7	106	1,750	150
102	SHIGEDO ²	JAPAN	3,045.6	73.3	80	4,108.3	82	2,003.0	50	18,902	55
103	HONSHU PAPER ²	JAPAN	2,967.5	26.5	128	4,567.4	77	332.6	138	7,703	109
104	ASAHI BREWERIES	JAPAN	2,932.1	33.3	121	5,977.7	54	1,099.3	75	6,222	125
105	SANKYO-KOKUSAKU PULP ²	JAPAN	2,902.3	69.7	85	3,162.2	107	677.6	108	7,436	110
106	SANKYO ²	JAPAN	2,892.9	84.9	73	2,849.8	113	1,305.1	64	9,234	101
107	HONAM OIL REFINERY ¹⁴	SOUTH KOREA	2,967.2	36.2	117	1,593.0	141	290.7	140	1,881	149
108	NISSAN SHATAI ²	JAPAN	2,856.6 ²	14.4 ²	141	1,109.4 ²	148	485.7 ²	128	5,533 ²	132
109	MEIR MILK PRODUCTS ²	JAPAN	2,792.0	20.9	133	1,288.7	146	409.1	130	7,408	111
110	TOYO SASHI ¹¹	JAPAN	2,776.7	139.3	50	2,655.8	118	1,008.4	83	4,709	140
111	BOND CORP. HOLDINGS ²	AUSTRALIA	2,757.4	199.2	32	7,162.7	46	708.1	104	10,408	96
112	DAIDO STEEL ²	JAPAN	2,754.9 ²	34.8 ²	120	2,884.8	112	544.4	122	10,570	94
113	NESSHIN STEEL ²	JAPAN	2,699.2	98.7	67	4,148.5	80	976.3	88	8,557	104
114	ALPS ELECTRIC ²	JAPAN	2,671.5	59.1	92	3,074.3	109	1,037.2	78	14,199	75
115	TOYODA AUTOMATIC LOOM WORKS ²	JAPAN	2,659.2 ²	75.9 ²	78	1,995.6 ²	137	1,170.7 ²	71	6,697 ²	121
116	ONODA CEMENT ²	JAPAN	2,641.9	72.5	81	3,722.0	89	664.5	109	6,890	116
117	ITOHAM FOODS ¹¹	JAPAN	2,617.0	43.0	111	1,462.5	144	768.0	100	6,852	118
118	PACIFIC DUNLOP ²	AUSTRALIA	2,607.1 ²	(29.3) ²	150	2,073.9 ²	135	712.6 ²	103	36,605 ²	23
119	YOKOHAMA RUBBER	JAPAN	2,555.0	44.3	108	2,512.3	124	392.7	134	10,751	93
120	PIONEER INTERNATIONAL ^{1, 20}	AUSTRALIA	2,497.0	120.9	59	2,579.1	121	1,022.8	82	9,200	102
121	NISSHIN FLOUR MILLING ²	JAPAN	2,476.2	44.7	107	1,482.7	142	628.2	115	3,505	143
122	UNITIKA ²	JAPAN	2,392.1 ²	14.7 ²	140	2,644.0 ²	120	192.0 ²	145	6,874 ²	122
123	MORINAGA MILK INDUSTRY ²	JAPAN	2,384.2	20.7	135	1,362.8	145	391.1	135	5,110	137
124	KANTO AUTO WORKS ²	JAPAN	2,320.5 ²	17.8 ²	138	684.8 ²	150	194.9 ²	144	5,761 ²	130
125	LION	JAPAN	2,306.1 ²	18.5 ²	136	1,770.6 ²	140	631.8 ²	114	5,083 ²	138

The definitions and concepts underlying the figures in this directory are explained on page 132. Footnotes appear on page 130.

	COMPANY	COUNTRY	SALES	PROFITS		ASSETS		STOCK-HOLDERS' EQUITY		EMPLOYEES	
Rank			\$ Millions	\$ Millions	Rank	\$ Millions	Rank	\$ Millions	Rank	Number	Rank
126	mitsui MINING & SMELTING ²	JAPAN	2,284.0	30.7	124	2,829.4	114	136.1	147	6,714	120
127	OMRON TATEISI ELECTRONICS ²	JAPAN	2,281.8	78.1	75	2,647.1	119	1,227.0	69	13,851	77
128	TOTO ²	JAPAN	2,280.0 ²	107.5 ²	62	2,266.1 ²	131	1,045.5 ²	77	8,570 ²	103
129	DAISHOWA PAPER ²	JAPAN	2,276.1	73.8	79	3,948.2	86	400.3	133	5,275	136
130	NICHINO GYOGYO KAISHA ²	JAPAN	2,177.5	10.2	144	1,277.4	147	100.2	149	2,855	145
131	mitsubishi MINING & CEMENT ²	JAPAN	2,174.7	35.5	118	2,893.8	111	556.1	121	6,459	123
132	KYOCERA ²	JAPAN	2,171.8	163.9	43	3,632.0	92	2,662.0	37	19,000	54
133	SHIN-ETSU CHEMICAL ²	JAPAN	2,157.6	106.8	63	3,235.1	105	1,087.3	76	10,074	98
134	NIIPPON SEIKO ¹⁴	JAPAN	2,155.7	44.1	109	3,254.5	103	1,290.4	66	11,572	88
135	HITACHI ZOSEN ²	JAPAN	2,123.7	68.1	86	4,655.5	76	482.4	126	5,506	131
136	AMCOR ¹	AUSTRALIA	2,112.3	109.4	61	1,965.8	139	869.3	95	16,000	67
137	MINOLTA CAMERA ²	JAPAN	2,104.7 ²	18.0 ²	137	2,542.0 ²	122	723.6 ²	102	12,400 ²	83
138	TOYOTA AUTO BODY ²	JAPAN	2,090.4 ²	16.2 ²	139	761.1 ²	149	235.3 ²	143	6,787 ²	119
139	MIKI SEIKA ²	JAPAN	2,070.4	21.7	132	1,476.3	143	812.0	96	5,465	134
140	SUMITOMO HEAVY INDUSTRIES ²	JAPAN	2,062.8	3.2	147	3,460.6	97	496.4	124	6,000	129
141	mitsubishi RAYON ²	JAPAN	2,051.9	36.4	116	2,728.1	117	697.7	105	7,237	115
142	KURARAY ²	JAPAN	2,032.9	26.4	129	2,452.9	125	404.4	131	7,237	114
143	BORAL ¹	AUSTRALIA	2,022.8	171.6	40	2,108.9	133	918.4	93	21,000	48
144	SHIONOGI ²	JAPAN	1,999.2	84.3	74	2,333.7	129	1,231.4	68	8,181	105
145	KYOWA HAKKO KOGYO	JAPAN	1,995.4	104.1	64	2,757.2	116	991.8	87	6,000	128
146	DOOSAN	SOUTH KOREA	1,963.6	32.5	123	2,083.2	134	482.3	127	15,175	71
147	CITIZEN WATCH ²	JAPAN	1,929.0	37.1	115	2,017.3	136	807.6	98	12,468	84
148	mitsui PETROCHEMICAL ²	JAPAN	1,913.2	63.1	88	3,276.5	101	683.7	107	4,938	139
149	CSR ²	AUSTRALIA	1,904.3	132.4	55	3,274.8	102	1,514.8	58	16,133	66
150	mitsui MINING ²	JAPAN	1,899.9	13.8	142	2,305.1	130	123.6	148	2,146	148
TOTALS			952,206.7	26,214.5		1,093,272.8		324,682.6		3,648,064	

Change in Sales

10 biggest increases

	Sales rank	1987-88
BOND CORP. HOLDINGS	111	143.6%
FLETCHER CHALLENGE	55	77.5
SUMITOMO RUBBER	88	70.9
ASAHI BREWERIES	104	66.0
BRIDGESTONE	19	63.9
DAIIPPON INK & CHEMICALS	68	59.8
KIRIN BREWERY	52	56.7
GOLD STAR	76	54.8
PIONEER INTERNATIONAL	120	52.5
PACIFIC DUNLOP	118	49.8

5 biggest decreases

SHOWA SHELL SEKIYU	28	13.6%
HITACHI ZOSEN	135	10.9
CSR	149	6.3
KOMATSU	56	1.4
NISSAN SHATAI	108	.6

Change in Profits†

10 biggest increases

	Sales rank	1987-88
OMRON TATEISI ELECTRONICS	127	309.8%
NISSAN MOTOR	4	273.7
GENERAL SEKIYU	101	264.7
NISSHN STEEL	113	262.4
ONODA CEMENT	116	254.5
CANON	24	216.2
HYUNDAI HEAVY INDUSTRIES	86	207.5
NIIPPON MINING	53	186.7
mitsubishi PETROCHEMICAL	100	184.8
SUMITOMO CHEMICAL	39	167.9

5 biggest decreases

PACIFIC DUNLOP	118	143.1%
MINOLTA CAMERA	137	60.0
LION	125	48.1
FUJII HEAVY INDUSTRIES	58	46.2
NEWS CORPORATION	69	37.3

†Listings exclude companies that lost money in 1987.

Footnotes to the Industrials

- ¹ Figures are for fiscal year ended June 30, 1988.
- ² Figures are for fiscal year ended March 31, 1988.
- ³ Figures are unconsolidated.
- ⁴ Figure is a FORTUNE estimate.
- ⁵ Figures are for fiscal year ended October 31, 1988.
- ⁶ Figures include some significant subsidiaries owned 50% or less, either fully or on a prorated basis.
- ⁷ Figures are for fiscal year ended November 30, 1988.
- ⁸ Name changed from Nippon Kikan KK June 8, 1988.
- ⁹ Figures are for fiscal year ended January 31, 1988.
- ¹⁰ Government-owned.
- ¹¹ Name changed from Mitsubishi Chemical Industries June 1, 1988.
- ¹² Figures are for fiscal year ended May 31, 1988.
- ¹³ Figures are for fiscal year ended October 20, 1988.
- ¹⁴ Formerly consolidated into Lucky-Goldstar.
- ¹⁵ Name changed from Nippon Gakki October 1, 1987.
- ¹⁶ Figures are for fiscal year ended April 30, 1988.
- ¹⁷ Figures are for fiscal year ended April 20, 1988.
- ¹⁸ Figures are for fiscal year ended September 30, 1988.
- ¹⁹ Figures are for fiscal year ended February 29, 1988.
- ²⁰ Name changed from Pioneer Concrete Services December 19, 1988.

Notes to the Pacific Rim Industrial Companies

Sales

All companies on the list must have derived more than 50% of their sales from manufacturing and/or mining. Sales do not include excise taxes or customs duties levied according to either volume or value sales, and so the figures for some companies—most of which sell gasoline, liquor, or tobacco—may be lower than those published by the companies themselves. Unless otherwise noted, figures ex-

clude intracompany transactions and include consolidated subsidiaries more than 50% owned, either fully or on a prorated basis. Figures have been converted to dollars using an exchange rate that consists of the official average rate during each company's fiscal year (ended December 31, 1988, unless otherwise noted).

Profits

Profits are shown after taxes, minority inter-

ests, and extraordinary items. Figures have been converted to dollars using an exchange rate that consists of the official average rate during each company's fiscal year (ended December 31, 1988, unless otherwise noted).

Assets

Totals shown at each company's year-end. Figures have been converted to dollars at the official exchange rate at each company's year-end.

Stockholders' equity

Stockholders' equity is shown at each company's year-end. Minority interest is not included. Figures have been converted to dollars at the official exchange rate at each company's year-end.

Employees

The figure shown is either a year-end or yearly average number as published.

The Industrials by Country

	1-50	51-100	101-150	Total	Largest company	1988 assets in millions	Rank
AUSTRALIA	2	2	6	10	ELDERS IXL	\$7,618.2	33
JAPAN	43	42	42	127	TOYOTA MOTOR	\$50,789.9	1
MALAYSIA	0	1	0	1	PETRONAS	\$3,633.0	84
NEW ZEALAND	0	1	0	1	FLETCHER CHALLENGE	\$5,135.1	55
SOUTH KOREA	4	4	2	10	SAMSUNG	\$27,386.1	5
TAIWAN	1	0	0	1	CHINESE PETROLEUM	\$6,706.4	41

Index to the Companies

Sales rank							
AISIN SEKI	81	HONSHU PAPER	103	DAI NIPPON PETROCHEMICAL	100	SHIONOGI	144
AJINOMOTO	87	KYOSUNG	71	DAI NIPPON RAYON	141	SHISEIDO	102
ALPS ELECTRIC	114	HYUNDAI HEAVY INDUSTRIES	86	DAI NIPPON MINING	150	SHOWA DENKO	57
AMCOR	136	HYUNDAI MOTOR	63	DAI NIPPON MINING & SMELTING	126	SHOWA SHELL SEKIYU	28
ASAHI BREWERIES	104	IBMI JAPAN	20	DAI NIPPON PETROCHEMICAL	148	SNOW BRAND MILK PRODUCTS	43
ASAHI CHEMICAL INDUSTRY	40	IDEMITSU KOSAN	23	DAI NIPPON TOATSU CHEMICALS	98	SONY	17
ASAHI GLASS	30	ISHIKAWAJIRMA-HARIMA HEAVY IND.	45	DAI NIPPON MILK INDUSTRY	123	SSANGYONG	48
BOND CORP. HOLDINGS	111	ISUZU MOTORS	21	DAI NIPPON NEC	8	SUMITOMO CHEMICAL	39
BORAL	143	ITOHAM FOODS	117	DAI NIPPON NEWS CORPORATION	69	SUMITOMO ELECTRIC INDUSTRIES	51
BRIDGESTONE	19	JAPAN TOBACCO	36	DAI NIPPON NICHRO GYOGYO KAISHA	130	SUMITOMO HEAVY INDUSTRIES	140
BROKEN HILL PROPRIETARY	38	JIUO PAPER	90	DAI NIPPON NIPPON LIGHT METAL	93	SUMITOMO METAL INDUSTRIES	31
CANON	24	KANEDO	70	DAI NIPPON NIPPON MEAT PACKERS	80	SUMITOMO RUBBER	88
CHINESE PETROLEUM	41	KANTO AUTO WORKS	124	DAI NIPPON NIPPON MACHINERY	53	SUNKYONG	29
CITIZEN WATCH	147	KAO	83	DAI NIPPON NIPPON OIL	16	SUZUKI MOTOR	44
COSMO OIL	27	KAWASAKI HEAVY INDUSTRIES	61	DAI NIPPON NIPPON SEIKO	134	TAIYO FISHERY	34
CRA	72	KAWASAKI STEEL	35	DAI NIPPON NIPPON STEEL	10	TAKEDA CHEMICAL	64
CSR	149	KIRIN BREWERY	52	DAI NIPPON NIPPON SUSAN KAISHA	78	TDK	95
DAEWOO	9	KOBE STEEL	32	DAI NIPPON NIPPONDENSO	22	TEIJIN	75
DAI NIPPON PRINTING	42	KOMATSU	56	DAI NIPPON NISSAN MOTOR	4	TOA HENRYO KOGYO	67
DAIDO STEEL	112	KONICA	97	DAI NIPPON NISSAN SHATAI	108	TOPPAN PRINTING	46
DAIHATSU MOTOR	62	KUBOTA	59	DAI NIPPON NISSAN FLOUR MILLING	121	TORAY INDUSTRIES	54
DAINIPPON INK & CHEMICALS	68	KUTARAY	142	DAI NIPPON NISSAN STEEL	113	TOSHIBA	6
DAISHOWA PAPER MFG.	129	KYOCERA	132	DAI NIPPON MIKI	26	TOTO	128
DOOSAN	146	KYOWA MAKRO KOGYO	145	DAI NIPPON OR PAPER	74	TOYO SASHI	110
ELDERS IXL	33	LION	125	DAI NIPPON OKI ELECTRIC INDUSTRY	91	TOYO SEIKAN	66
FLETCHER CHALLENGE	55	MATSUBUCHI ELECTRIC INDUSTRIAL	3	DAI NIPPON OMRON TATEISHI ELECTRONICS	127	TOYODO	89
FUJI ELECTRIC	73	MATSUBUCHI ELECTRIC WORKS	47	DAI NIPPON ONODA CEMENT	116	TOYODA AUTOMATIC LOOM WORKS	115
FUJI HEAVY INDUSTRIES	98	MAZDA MOTOR	12	DAI NIPPON PACIFIC DUNLOP	118	TOYOTA AUTO BODY	138
FUJI PHOTO FILM	49	MELN MILK PRODUCTS	109	DAI NIPPON PETRONAS	84	TOYOTA MOTOR	1
FURUSU	13	MELN SEIKA	139	DAI NIPPON PIONEER ELECTRONIC	99	UBE INDUSTRIES	77
FURUKAWA ELECTRIC	65	NINOLTA CAMERA	137	DAI NIPPON PIONEER INTERNATIONAL	120	UNITIKA	122
GENERAL SEKIYU	101	DAI NIPPON MITSUBISHI ELECTRIC	11	DAI NIPPON RICOH	60	YAMAHA	92
GOLD STAR	76	DAI NIPPON MITSUBISHI HEAVY INDUSTRIES	15	DAI NIPPON SAMSUNG	5	YAMAHA MOTOR	85
HINO MOTORS	94	DAI NIPPON MITSUBISHI KASEI	37	DAI NIPPON SANKYO	106	YAMAZAKI BAKING	96
HTACHI	2	DAI NIPPON MITSUBISHI METAL	30	DAI NIPPON SANYO ELECTRIC	18	YOKOHAMA RUBBER	119
HTACHI ZOSSEN	135	DAI NIPPON MITSUBISHI MINING & CEMENT	131	DAI NIPPON SEKISUI CHEMICAL	79		
HONAM OIL REFINERY	107	DAI NIPPON MITSUBISHI MOTORS	14	DAI NIPPON SHARP	25		
HONDA MOTOR	7	DAI NIPPON MITSUBISHI OIL	82	DAI NIPPON SHIN-ETSU CHEMICAL	133		

THE TOP BANKS

FORTUNE's list of the 25 largest banking corporations shows a tidal wave of Japanese money washing across the Pacific, but the socialists who run the Bank of China had the fattest profits.

These 25 banks, ranked by assets, are the biggest in the region, and 23 are Japanese. The others are the government-owned Bank of China (No. 18) in the People's Republic and Hongkong & Shanghai Banking (No. 21) in Hong Kong. The assets of Japan's top ten banks have grown 62% since 1986 to \$2.9 trillion, and only partly because of the appreciation of the yen. The rest of the growth has come through acquisitions and aggressive expansion. By contrast, the ten largest U.S. banks have assets totaling \$859.1 billion.

The most profitable was the Bank of China, which had net income of \$1.1 bil-

lion last year. But it's worth noting that the bank has a monopoly on foreign exchange for China. America's Citicorp, which has plenty of competition, earned \$1.8 billion in 1988.

The stunning performance of some Japanese banks shines through in the tables on the following page showing return on stockholders' equity and assets per employee. Norinchukin Bank (No. 7) had the best return on equity, 19.4%, and was second in assets per employee. Three Japanese banks, Toyo Trust (No. 19), Zenshinren (No. 25), and Yasuda Trust (No. 16), all had returns above 15%. Sumitomo Bank (No. 13) had

the biggest earnings rebound, up 208.2% to \$1 billion.

The Japanese banks are increasing their stakes in the U.S. Dai-ichi Kangyo, the No. 1 bank, has agreed to buy 60% of CIT Group, a finance company, and 4.9% of Manufacturers Hanover in New York. Japanese banks account for 25% of banking assets in California, according to the San Francisco Federal Reserve. They've been busy at home too. In August, Mitsui Bank (No. 9) announced that it planned to merge with Taiyo Kobe (No. 14). Had the merger occurred last year, the combined bank would have been No. 2. — Joan C. Viebranz

Rank	BANK Ranked by assets	COUNTRY	ASSETS ¹	DEPOSITS ²	Rank	LOANS ³	NET INCOME ⁴	STOCK- HOLDERS' EQUITY ⁵	EMPLOY- EES
			\$ Millions	\$ Millions		\$ Millions	\$ Millions	\$ Millions	\$ Millions
1	DAI-ICHI KANGYO BANK ⁶	JAPAN	379,322.8	283,185.4	1	212,719.0	1,095.8	8,567.5	18,563
2	SUMITOMO BANK ⁶	JAPAN	363,232.6	267,995.2	2	194,615.4	1,023.5	8,342.2	16,516
3	FUJI BANK ⁶	JAPAN	360,529.8	258,574.7	3	104,254.3	904.2	8,888.3	14,542
4	MITSUBISHI BANK ⁶	JAPAN	348,999.0	251,146.9	4	185,062.9	875.4	8,286.0	14,296
5	SANWA BANK ⁶	JAPAN	330,705.4	246,625.5	5	193,856.3	898.4	7,541.1	14,337
6	INDUSTRIAL BANK OF JAPAN ⁶	JAPAN	272,918.3	216,615.9	6	146,857.2	472.0	6,273.2	5,342
7	NORINCHUKIN BANK ^{6,7}	JAPAN	235,944.3	214,256.7	7	97,744.9	249.0	1,283.9	3,163
8	TOKAI BANK ⁶	JAPAN	227,644.3	172,072.5	9	122,260.5	490.0	5,140.8	12,306
9	NETSUI BANK ⁶	JAPAN	211,358.6	152,696.9	11	123,313.2	572.1	4,601.7	10,185
10	MITSUBISHI TRUST & BANKING ^{6,7}	JAPAN	208,341.7	178,030.5	8	94,690.9	472.0	2,304.6	6,050
11	BANK OF TOKYO ⁶	JAPAN	185,428.8	129,368.4	15	96,526.1	342.1	3,941.6	13,159
12	LONG-TERM CREDIT BANK OF JAPAN ⁶	JAPAN	184,752.9	147,167.6	13	116,072.9	373.6	4,176.2	3,336
13	SUMITOMO TRUST & BANKING ^{6,7}	JAPAN	182,529.1	162,201.0	10	80,513.6	455.7	3,290.3	6,554
14	TAIYO KOBE BANK ^{6,7}	JAPAN	175,470.4	131,757.8	14	112,057.7	298.6	3,251.4	13,218
15	NETSUI TRUST & BANKING ⁶	JAPAN	174,943.5	151,352.7	12	80,084.5	369.1	2,661.9	6,345
16	YASUDA TRUST & BANKING ^{6,7}	JAPAN	167,847.6	126,845.0	16	73,601.8	306.9	2,013.1	5,358
17	DAIWA BANK ^{6,7}	JAPAN	150,733.7	78,790.4	23	79,934.9	253.9	2,641.7	8,865
18	BANK OF CHINA ⁶	CHINA	149,997.5	60,068.4	25	51,114.7	1,132.6	6,603.1	43,600
19	TOYO TRUST & BANKING ^{6,7}	JAPAN	120,873.1	109,130.6	17	49,374.4	272.3	1,717.4	5,142
20	NETSUI CREDIT BANK ^{6,7}	JAPAN	115,176.8	92,106.1	19	71,644.0	222.9	2,403.6	2,283
21	HONGKONG & SHANGHAI BANKING HONG KONG		113,165.7	101,886.9	18	58,476.4	350.7	4,601.1	52,414
22	KYOWA BANK ⁶	JAPAN	110,613.7	83,621.8	21	65,372.9	258.3	2,755.0	8,287
23	SHOKO CHUKIN BANK ^{6,7}	JAPAN	93,210.0	84,031.6	20	75,996.7	44.9	2,212.4	6,316
24	SAITAMA BANK ^{6,7}	JAPAN	93,168.3	70,908.5	24	54,047.6	173.7	2,106.5	8,084
25	ZENSHINREN BANK ⁶	JAPAN	86,874.6	79,358.2	22	41,260.2	190.5	1,236.3	980
TOTALS			5,043,782.5	3,847,852.2		2,671,442.8	12,288.2	107,941.3	299,313

Footnotes to the Banks

¹ Asset figures have been converted into U.S. dollars using the market rate at each bank's fiscal year-end, which is December 31,

1988, unless otherwise noted. Chuo Trust, Daiwa, Mitsubishi Trust, and Yasuda Trust include holdings of major trusts in their assets.

² Deposit figures have been converted into U.S. dollars using the market rate at each bank's fiscal year-end. Figures for Bank of Tokyo, Industrial Bank of Japan, Long-Term Credit Bank of Japan, and

Norinchukin Bank include their own bonds.

³ Loan figures have been converted into U.S. dollars using the market rate at each bank's fiscal year-end. Figures include loans to banks and money at call or available on short notice.

⁴ Net income figures have been converted into U.S. dollars using the average rate in the official exchange market during the bank's fiscal year. Net income is after taxes and excludes minority interest.

⁵ Stockholders' equity figures have been converted into

U.S. dollars using the market rate at each bank's fiscal year-end. Equity is the sum of capital stock, surplus, and retained earnings.

⁶ Figures are for fiscal year ended March 31, 1988.

⁷ Figures are unconsolidated.

⁸ Government-owned.

Return on Stockholders' Equity

The ten highest

	Rank	
NORINCHUKIN BANK	7	19.4%
BANK OF CHINA	18	17.2
TOYO TRUST & BANKING	19	15.9
ZENSHINREN BANK	25	15.4
YASUDA TRUST & BANKING	16	15.2
MTSUBISHI TRUST & BANKING	10	14.3
MITSUI TRUST & BANKING	15	13.9
SUMITOMO TRUST & BANKING	13	13.8
DAI-ICHI KANGYO BANK	1	12.8
MITSUI BANK	9	12.4

Change in Net Income

The ten biggest increases*

	Rank	1987-88
SUMITOMO BANK	2	208.2%
DAI-ICHI KANGYO BANK	1	85.0
NORINCHUKIN BANK	7	77.3
SANWA BANK	5	71.4
FUJI BANK	3	65.1
MITSUI BANK	9	63.1
NIPPON CREDIT BANK	20	61.3
TOKAI BANK	8	60.7
TAIYO KOBE BANK	14	53.3
KYOWA BANK	22	52.7

The one decrease*

BANK OF TOKYO	11	0.9%
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*Percent increase or decrease of net income. Does not include money losses.

Assets per Employee

The ten highest

	Rank	
ZENSHINREN BANK	25	\$88,647,528
NORINCHUKIN BANK	7	74,595,095
LONG-TERM CREDIT OF JAPAN	12	55,381,565
INDUSTRIAL BANK OF JAPAN	6	51,089,163
NIPPON CREDIT BANK	20	50,448,749
MITSUBISHI TRUST	10	34,436,647
YASUDA TRUST & BANKING	16	31,326,540
SUMITOMO TRUST & BANKING	13	27,850,024
MITSUI TRUST & BANKING	15	27,571,966
FUJI BANK	3	24,792,308

The five lowest

KYOWA BANK	22	13,347,856
TAIYO KOBE BANK	14	13,275,107
SAITAMA BANK	24	11,567,955
BANK OF CHINA	18	3,440,309
HONGKONG & SHANGHAI	21	2,159,074

The Banks by Country

	Total	Largest bank	1988 assets in millions	Rank
CHINA	1	BANK OF CHINA	\$149,997.5	18
HONG KONG	1	HONGKONG & SHANGHAI BANKING	\$113,165.7	21
JAPAN	23	DAI-ICHI KANGYO BANK	\$379,322.8	1

Index to the Banks

Rank		Rank		Rank	
18	BANK OF CHINA	4	MITSUBISHI BANK	2	SUMITOMO BANK
11	BANK OF TOKYO	10	MITSUBISHI TRUST & BANKING	13	SUMITOMO TRUST & BANKING
1	DAI-ICHI KANGYO BANK	9	MITSUI BANK	14	TAIYO KOBE BANK
17	DAIWA BANK	15	MITSUI TRUST & BANKING	8	TOKAI BANK
3	FUJI BANK	20	NIPPON CREDIT BANK	19	TOYO TRUST & BANKING
21	HONGKONG & SHANGHAI BANKING	7	NORINCHUKIN BANK	16	YASUDA TRUST & BANKING
6	INDUSTRIAL BANK OF JAPAN	24	SAITAMA BANK	25	ZENSHINREN BANK
22	KYOWA BANK	5	SANWA BANK		
12	LONG-TERM CREDIT BANK OF JAPAN	23	SHOKO CHUKIN BANK		